DOCUMENT RESUME

ED 409 983 PS 025 551

AUTHOR Cillessen, Antonius H. N.; And Others
TITLE Early Peer Interaction as a Predictor of Later Social Adjustment: Results from a Five-Year Longitudinal Study.
PUB DATE Apr 97
NOTE 15p.; Paper presented at the Annual Meeting of the Eastern Psychological Association (Washington, DC, April 10-13, 1997).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Children; Elementary School Students; *Emotional Adjustment; *Interpersonal Competence; Kindergarten Children; Longitudinal Studies; Peer Acceptance; Peer Groups; *Peer Relationship; *Predictor Variables; Primary Education; *Prosocial Behavior; Self Evaluation (Individuals); *Social Adjustment; Social Behavior; Sociometric Techniques
IDENTIFIERS Self Report Measures; Social Strategies

ABSTRACT

This study tested the predictive links between children's interactions with peers in early elementary school and their social and emotional adjustment at the end of elementary school. A sample of 231 boys starting kindergarten and first grade were observed during this longitudinal study, on three separate occasions: kindergarten and first grade, first and second grade, and finally, fifth and sixth grade, respectively. Data were collected using peer-, teacher-, and self-report methodologies at each time. Play group observational data were also recorded in observations 1 and 2. Composite measures of four central social behaviors (aggression, disruptive behavior, withdrawal, and prosocial behavior) were computed for each observation. The results demonstrated that aspects of early peer interaction are important predictors of later social adjustment outcomes, and highlighted the importance of starting intervention efforts in the early elementary school years. In particular, boys who had been consistently rejected demonstrated several social adjustment problems after the 5-year interval. (AA)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED 409 983

Early Peer Interaction as a Predictor of Later Social Adjustment: Results From a Five-Year Longitudinal Study

Antonius H. N. Cillessen

University of Connecticut

Gerbert J. T. Haselager and Cornelis F. M. van Lieshout

University of Nijmegen, The Netherlands

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
Antonius H.N. Cillessen
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

In G. Bovasso (Chair), Social Aggression. Paper presented at the annual meeting of the Eastern Psychological Association, 1997, Washington, DC (April).

PS 025551

BEST COPY AVAILABLE

The purpose of this paper is to test the predictive links between children's interactions with peers in early elementary school and their social adjustment at the end of elementary school. A large number of studies has indicated that sociometric status and social behavior are predictive of later social adjustment problems (see, for reviews Kupersmidt, Coie, & Dodge, 1990; Parker & Asher, 1987). In particular, peer rejection and aggression are predictive of later externalizing and internalizing problems, as well as poor school adjustment.

The majority of these studies, however, have made predictions from peer relations problems assessed half-way through elementary school into early adolescence. Not many studies have made predictions from peer relationship problems assessed at an earlier age. The impact of peer interaction, however, is expected to begin as soon as a child begins to enter peer groups on a systematic basis when he or she goes to kindergarten.

In the present study the existing data base on the role of early peer interaction is extended by making predictions from peer interaction in early elementary school to children's social and emotional adjustment at the end of elementary school.

BEST COPY AVAILABLE

A longitudinal study including three measurement Times was conducted. Table 1 provides an overview of the design of the study. The longitudinal sample consisted of 231 boys from two age cohorts selected from 37 elementary schools. Time 1 took place in kindergarten and 1st grade, Time 2 took place one year later in 1st and 2nd grade, and Time 3 took place four years after Time 2 in 5th and 6th grade. Classroom peers and teachers participated in each measurement Time as well. The attrition rate was low: 99% of the original sample participated at Time 2, and 80% of the original sample participated at Time 3. Boys in the longitudinal sample were 5-7 years of age at Time 1, 6-8 years at Time 2, and 10-11 years at Time 3.

Data were collected using peer-, teacher, and self-report methodologies at each measurement Time. Play group observational data were also recorded in Times 1 and 2. Sociometric screening took place at each of the three Times of data collection and yielded standard sociometric data. For the purpose of the present paper, two scores were used at each measurement Time: a continuous score for each target child's social preference by peers, and a dichotomous score indicating whether or not the child was classified as sociometrically rejected.

BEST COPY AVAILABLE

Composite measures of four central social behaviors (aggression, disruptive behavior, withdrawal, and prosocial behavior) were computed at each measurement Time based on peer nominations, teacher evaluation (using the CCQ), and extensive observations of peer interaction in small play groups at Times 1 and 2, and based on classroom peer nominations at Time 3.

Measures of social adjustment were collected at Time 3. Three measures were derived from a standardized instrument used for the assessment of bully/victim problems among school children, a self-report instrument consisting of a variety of items asking children about their experiences with peers in school (Olweus, 1991). The three main subscales derived from this instrument measure bullying, victimization, and social isolation or loneliness. The fourth measures was taken from a standardized measure to assess depression in children. The scale has demonstrated excellent psychometric properties and has been extensively validated among elementary school-aged children. In addition to a total depression score, four subscales measuring four components of depression are represented in the scale. The fifth and final measure of adjustment focused on the development of friendship relations. This

BEST COPY AVAILABLE

measure was based on reciprocal best friend nominations obtained with peer nominations in school.

First, the intercorrelations between measures at each point in time and across times were examined. At each time, aggression and disruption correlated positively, and both composites correlated negatively with prosocial behavior. Withdrawal correlated less consistently with the other behaviors (Table 2). Social preference correlated negatively with aggression and disruption and positively with prosocial behavior at each time. Correlations between social preference and withdrawal were nonsignificant (Table 3). All measures demonstrated cross-temporal consistency, except for Time 3 withdrawal which did not correlate with the earlier withdrawal measures (Table 4). Meaningful relationships emerged between the social adjustment measures assessed at Wave 3 (Table 5).

Second, all Time 3 outcome measures were predicted from all Time 3 social preference and behavior measures using regression analyses. Table 6 summarized the significant predictive relationships.

Third, the Time 3 outcome measures were predicted from the Time 1 and 2 preference and behavior measures using regression analyses, after the effects of the concurrent Time 3 preference and behavior measures were taken into

BEST COPY AVAILABLE

account first. These predictive effects are summarized in Table 7, demonstrating significant predictive relationships between measures of early peer interaction and each of the later outcome measures.

Fourth and finally, to analyze the effects of peer rejection, boys who were consistently classified as rejected at each of the three time points were compared to average-status boys on the Time 3 outcome measures. As can be seen in Table 8, boys who had been consistently rejected were more likely to engage in bullying behavior, more likely to be lonely and depressed, and less likely to have friends than average status boys.

In summary, the results from this study demonstrate that aspects of early peer interaction are important predictors of later social adjustment outcomes. In particular, boys who had been consistently rejected demonstrated several social adjustment problems after the five-year interval.

These findings have implication for intervention programs with children. The predictor measure were determined in kindergarten and first grade. The results from this study highlight the importance of starting intervention efforts in these early elementary school years.

BEST COPY AVAILABLE

Table 1
Nijmegen Longitudinal Study
Design and Measures

Time 1	Time 2	Time 3
1986	1987	1991
K	G1	G5
G1	G2	G6
5-7 y.	6-8 y.	10-12 y.
(n_1 = 231)	(n_2 = 228)	(n_3 = 185)
Sociometrics	Sociometrics	Sociometrics
Preference	Preference	Preference
Rejection	Rejection	Rejection
Social Behavior	Social Behavior	Social Behavior
(peers, teachers, observations)	(peers, teachers, observations)	(peers)
Aggression	Aggression	Aggression
Disruptive	Disruptive	Disruptive
Prosocial	Prosocial	Prosocial
Withdrawal	Withdrawal	Withdrawal
		Social Adjustment
		Bullying
		Victimization
		Loneliness
		Depression
		Friendship

BEST COPY AVAILABLE

Table 2
Intercorrelations of Social Behavior
Composite Scores by Measurement Year
(N = 185)

	Disruptive	Prosocial	Withdrawn
Aggression			
Time 1	.77 *	-.48 *	-.08
Time 2	.83 *	-.50 *	-.36 *
Time 3	.71 *	-.33 *	-.06
Disruptive			
Time 1		-.47 *	.01
Time 2		-.49 *	-.33 *
Time 3		-.32 *	-.06
Prosocial			
Time 1			-.16 *
Time 2			.17 *
Time 3			-.02

BEST COPY AVAILABLE

Table 3
Within-Time Correlations of Social Preference With Social Behavior Composite Scores (N = 185)

Preference X	Time 1	Time 2	Time 3
Aggression	-.57 *	-.42 *	-.35 *
Disruptive	-.43 *	-.37 *	-.38 *
Prosocial	.38 *	.33 *	.43 *
Withdrawn	-.12	.03	-.09

BEST COPY AVAILABLE

Table 4
Cross-Temporal Correlations of Social Preference and Social Behavior Composite Scores (N = 185)

	T1-T2	T2-T3	T1-T3
Preference	.59 *	.48 *	.41 *
Aggression	.53 *	.31 *	.32 *
Disruptive	.45 *	.30 *	.34 *
Prosocial	.33 *	.18 *	.29 *
Withdrawn	.43 *	.06	.10

BEST COPY AVAILABLE

Table 5
Intercorrelations of Time 3 Social Adjustment Measures (N = 185)

	Victim-ization	Loneli-ness	Depres-sion	Friend-ship
Bullying	.17 *	.07	.24 *	-.05
Victimization		.53 *	.44 *	-.24 *
Loneliness			.41 *	-.29 *
Depression				-.27 *

BEST COPY AVAILABLE

Table 6
Concurrent Predictors of Time 3 Social Adjustment Measures

Criterion	Predictor	β
Bullying	T3 Aggression	.24
	T3 Prosocial	-.14
	T3 Withdrawn	-.14
Victimization	T3 Preference	-.14
	T3 Prosocial	-.14
Loneliness	T3 Preference	-.40
	T3 Disruptive	-.13
Depression	T3 Preference	-.22
Friendship	T3 Preference	.39
	T3 Prosocial	.24
	T3 Disruptive	.15

BEST COPY AVAILABLE

Table 7
Early Predictors of Time 3 Social Adjustment Measures

Criterion	Predictor	β
Bullying	T1 Preference	-.17
Victimization	T1 Aggression	-.18
	T2 Preference	-.22
	T2 Prosocial	-.12
Loneliness	T1 Preference	.23
	T1 Withdrawn	.12
	T2 Preference	-.30
Depression	T2 Withdrawn	.13
Friendship	T2 Withdrawn	-.11

BEST COPY AVAILABLE

Table 8
Means of Time 3 Social Adjustment Measures for Boys Who Were Rejected At Each Measurement Year

Criterion	Time 1	Time 2	Time 3
Bullying	1.33 *	1.13	1.36 *
Victimization	.79	1.03 *	.91
Loneliness	.93	1.14 *	1.16 *
Depression	10.38	11.05	12.17 *
Friendship	.51	.50	.39 *

* Significantly different from Average, $p < .05$

BEST COPY AVAILABLE